

1-72667-6

102157Z OCT 1971 / 025004Z

RECOMMENDATION OF OBSERVERS. Observers of radio waves requested to contact Dr. V. J. Kralik, who recommended that the time signal of station OMA in Czechoslovakia be used as a standard, and that the Czechoslovakian Academy of Sciences take whatever measures necessary to increase the power of the transmitted signal. Computing centers have been set up or are being installed in most of the socialist countries. It was recommended that the publication containing results of satellite observations also include scientific papers, particularly on problems of optical observation. Many new stations have been equipped with the modified NAFAR system for optical observations. A bibliography on optical observations 1967-1971 has been prepared and will be continued. It is urged that the results of observation be used for wider problems: ionospheric studies, geodetic measurements, and the like. It is further recommended that results and observers be exchanged with organizations around the world.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: SV, DO

MURKIN-SGW: 000

WTH: 050

Card 2/2

32561/65 TSS-2/POL(2)/NSD/IS-1(d)/NSO-2/INT(1)/PL(1)-2/INT(1)-2/INT(d)/DU(v)/
/ED(1)-2/MED-2/PLA(c)/ED(d)-3 PL-1/POL/PL-1/PL-1/PL-1/PL-2/PL-3/PL-4/
/PL-5/PL-6/PL-7/PL-8/PL-9/GV/MR

CONFIDENTIAL BY 11/1/65

6/3126/65/000/002/0156/0165

17. The following is a copy of a communiqué of the Committee on Multilateral
Collaboration (Chairman of the Council of Ministers of Socialist countries for the
problem of space) concerning the launching of the first Earth satellite, "Moscow," 21
December 1962.

SOURCE: PAP, 1963, 4, 1, p. 1. (Analityczny M. Sztaniewicz, Zeszyt, no. 2, 1963. Warsaw, PAM,
1963.) WG-163

According to the communiqué, satellites like Echo 1 satellite, Explorer II and satellite (satellite) DAV-1 / 25 carried

information on the problem of the first Earth satellite. "Moscow," East Germany, Poland, Czechoslovakia, Bulgaria, Hungary, Romania, Yugoslavia, and other countries participated in keeping track of the launching of the first satellite and conferences (Leningrad, Warsaw) to solve problems of space and geographical problems by information on satellites. The Soviet Union also sent data on 7500 observations of 70 satellites and data from 1 October 1962 to 1 October 1963. In 1963, 21 countries from all over the world participated in simultaneous observations of the first Earth satellite in order to determine perigee height for studying

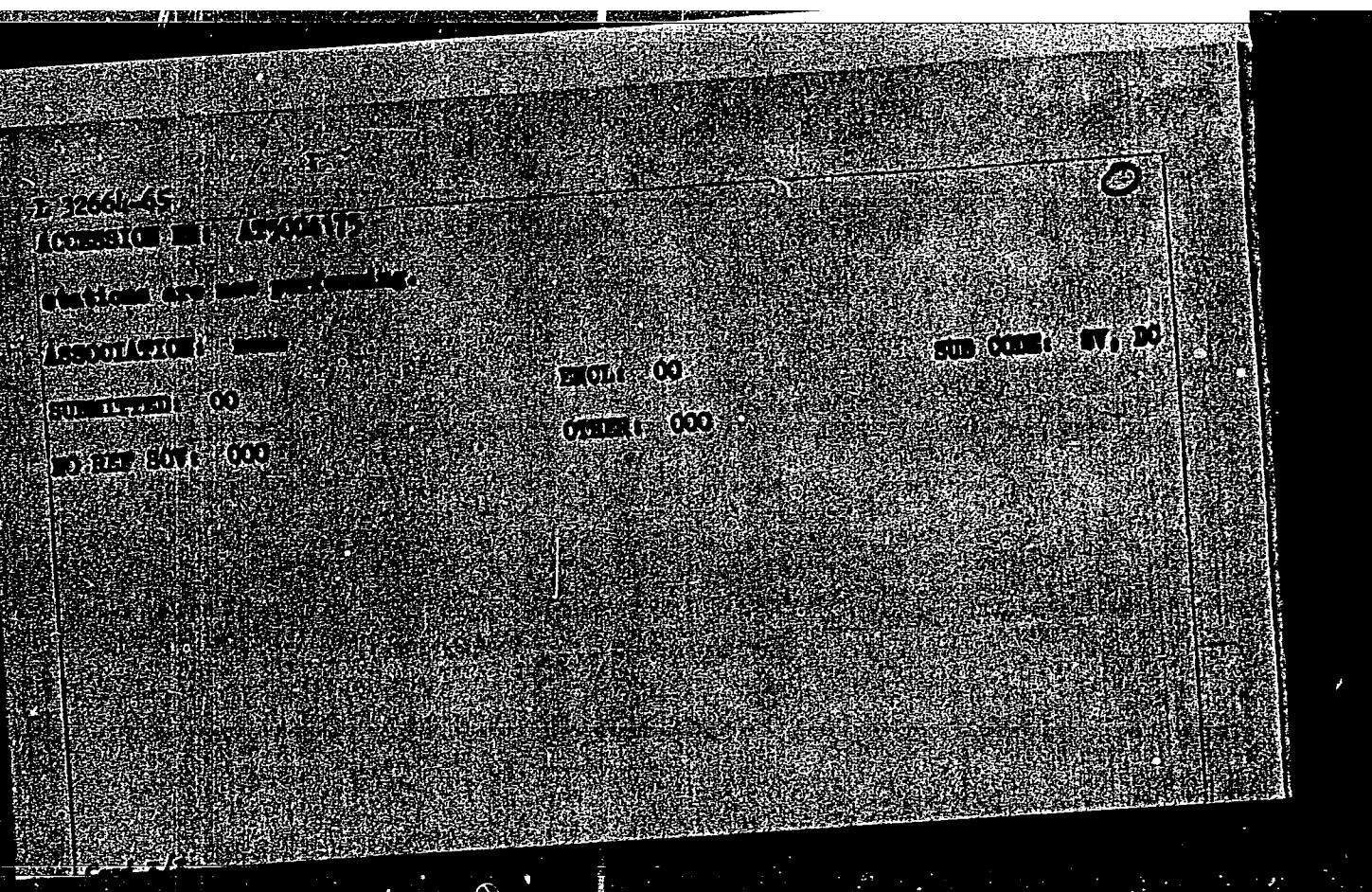
Project 1

CLASSIFICATION: ACP004775

After a period of time it was decided to discontinue the INTEROBS program, with Dr. Hill of Hungary as coordinator. Results were not ideal, the number of synchronous orbits not being as great as desired, but the possibilities of geodetic application were favorable. It was recommended that the INTEROBS program be continued, that the various centers furnish monthly forecasts of satellite visibility, that each government of European countries, in both eastern and western Europe, be invited to participate in the observation of satellites of all nations. It was recommended that synchronous photographic cameras be continued, particularly of 2000 mm, that the number of stations be increased, and that observations be made in order to improve position data. It was urged to utilize the Czechoslovak radio station OM in Ostrava to continue to be used for timing of satellite passes over Central Europe. More stations are being equipped with cameras and cameras are being developed. The VZLUM company has developed improved cameras for the second edition of the first series of Observations of Artificial Earth Satellites (1962) to be published by the Polish Academy. The German Academy will be responsible for the third number (1964), and the Czechoslovakian Academy for the fourth (1967). Journals for 1966 and 1967 are being planned. A new journal, "Soviet Space Research," is being prepared. In the meeting, the conference was held on the preparation, financing, and organization of the First International Conference on the Observation of Artificial Satellites.

"APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001032710014-2



APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001032710014-2"

MASSEVICH, A.G., doktor fiz.-matemat.nauk

Photographic observations of artificial satellites; a conference
in Pulkovo. Vest. AN SSSR 33 no.3:131-133 Mr 63. (MIRA 16:3)
(Artificial satellites--Tracking)

S/0033/63/040/004/0659/0667

ACCESSION NR: AP3004321

AUTHOR: Masevich, A. G.; Kotok, E. V.

TITLE: On the evolutionary interpretation of the Herzsprung-Russell diagram of the cluster in Orion

SOURCE: Astronomicheskiy zhurnal, v. 40, no. 4, 1963, 659-667

TOPIC TAGS: Orion I cluster, star age determination, cold star, hot star, star evolution, star formation

ABSTRACT: The age of the hottest stars in the Orion I cluster is determined under different assumptions concerning their evolution. The age of the cold stars, which are apparently still in the stage of gravitational contraction, is also estimated, assuming radiative equilibrium and taking into account the convective zone in the subphotospheric layer. The results show a dispersion in the ages of the hot and cold stars which is of the order of the age of the cluster. Possible reasons for this dispersion are analyzed. It is concluded that the duration of the star formation process in the cluster is considerable. Orig. art. has:

6 figures, 3 tables, and 4 formulas.

ASSOCIATION: Astronomicheskiy sovet (Astronomical Council, Academy of Sciences SSSR)

Card 1/

MASEVICH, A. G. (Acad. Sci. USSR)

"Some Results of International Cooperation on Visual and Photographic Simultaneous
Tracking of Satellites at USSR and East European Tracking Stations in 1963"

Report presented at the COSPAR, 5th Intl. Space Science Symposium, Florence,
Italy, 8-20 May 1964.

SHCHEGOLEV, D. Ye.; MASEVICH, A. I.; AFANAS'YEV, B.G.

Synchronous observations of the artificial earth satellite
"Echo-1" for geodetic purposes. Vest. AN SSSR 34 no.7:74-77
Jl '64 (MIRA 17:8)

1. Astronomicheskiy sovet AN SSSR.

"APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001032710014-2

SAKURITA, T. I.
Sakurita, T. I.
SAKURITA, T. I.

(A) (1) (b) (5)
A (b) (5)
B (b) (5)
C (b) (5)

APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001032710014-2"

22-51565-153(1)/AMC(1)-2/AFV(1)/DDP(1)/IS(1)-7/NSA(1)/MSS-2 - E-44/P4-5/P6-1/
ACCESSION NO. A1701AD60

UR/0384/65/00/001/0011/0016

AUTHOR: Vasyutin, V. G. (Doctor of Physico-mathematical Sciences)

TITLE: What do we know about our planet?

SOURCE: Sov. Vopr. Kibernetika, No. 1, 1967, p. 1-16

TOPIC: U.S. /Soviet satellites; radiation belts; magnetic field; upper atmosphere; space medicine; solar activity; gravitation field; surveying

ABSTRACT: A review of the extension of human knowledge, brought about by the development of artificial satellites, is presented. Since 1957, several hundreds of satellites have been launched. The instruments carried by them have made possible the discovery of radiation belts around the earth and have contributed to our knowledge of the planet's magnetic field. Moreover, information has been obtained on the atmosphere and ionosphere from space. The development of methods to survey the earth, the other planets, and charged particles released from the clouds, the cloud-cover; the satellites have improved our weather forecasts and storm-warning systems. The success in the use of the satellites brought about the development of space biology and medicine, clarified our understanding of the earth's gravitational field, and gave us data on the earth's irregular

452351-6

ACCESSION NR.: 452351-6

changes and fluctuations in the variable density of the upper atmosphere and the correlation of the density variations with solar activity are now better understood. Satellite triangulation of the earth's surface gave us a means for more accurate surveying of islands and remote regions, and for tying these surveys to the existing network, and for determining the distances between various points. Orig. art. has 7 figures and 1 table.

ASSOCIATION: none

SUBMENTOR: 00

ENCL: 00

SUB-CODE: AA, ES

NO. REF. Sovt: 001

OTHER: 000

Carlo R. F. M.

L 2476-66 FSS-2/EMT(1)/TS(a)/EWA(d)

TT/GW

UR/0026/65/000/009/P002/P004

ACCESSION NR: AP5025243

AUTHOR: Keldysh, M. V. (Academician); Lebedinskiy, A. I. (Professor); Khodarev, Yu. K. (Engineer); Masevich, A. G. (Doctor of physico-mathematical sciences) 55

TITLE: First results of an important experiment [Preliminary evaluation of Zond-3 moon photos]

SOURCE: Priroda, no. 9, 1965, II-IV

TOPIC TAGS: moon, Zond 3, lunar topography, selenology, moon far side, lunar probe, lunar surface, selenography

ABSTRACT: A preliminary evaluation is given of the photographs of the far side of the moon obtained by Zond-3. The following observations are based on statements made by M. V. Keldysh, A. I. Lebedinskiy, Yu. K. Khodarev, and A. G. Masevich at a press conference held on 23 August 1965. Spectra of the lunar surface were photographed in the 3500-2500-Å wavelength range, and spectrophotometry was carried out in the ultraviolet range from 2700 to 1900 Å and in the infrared from 4 to 3 microns. The probe employed a specially devised small-size phototelevision system that ensured protection of the film against cosmic radiation. The camera had an objective with a focal length of 106.4 mm and a relative aperture of 1:8. Special film 25 mm in width and exposure times of 1/100 and 1/300 sec were used. The photographs were ex-

Card 1/2

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ACCESSION NR: AP5025243

Lipskiy. They showed few extended dark depressions under the direction of Yu. N. examined at the Shternberg State Astronomical Institute under the direction of Yu. N. part of the moon facing the earth consists mostly of seas, while the far side. The northern almost completely covered by a gigantic continent. So-called talassoids, extensive depressions whose floor is covered by craters, appeared on the far side. These formations are similar in size to the seas on the near side, but differ in coloration. A high degree of crater concentration is evident on the far side. The photographs also confirm the asymmetry of the moon relative to a plane dividing the near and far sides. It is concluded that, in general, the far side has fewer seas and is brighter and more mountainous than the near side. [DM]

ASSOCIATION: none

SUBMITTED: 00

DO REP Sov: 000

ENCL: 00

OTHER: 000

SUB CODE: AA

ATT PRESS: 4/85

BVK
Card 2/2

MASEVICH, A.G., doktor fiz. matematik

Symposium in France on methods in using the observations of
artificial celestial bodies to study their orbits. Vest. AN SSSR
35 no.10:110 O '65.

(MIRA 18:10)

MASEVICH, A.G.; KOTOK, E.V.; DLUHNEVSKAYA, O.B.; MAZALT, A.

The neutrino luminosity of stars. Astronomicheskii zhurnal. 42 no.2:334-340
Mr-Apr '65.

(MIRA 18:4)

1. Astronomicheskiy sovet All SSSR i Observatoriya di Brera, Italiya.

"APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001032710014-2

MASEVICH, A.G. doktor fiziko-matem. nauk

Artificial satellites and our planet. Zem. i vesel. 1 no.1:11-16 Ja-P
'65. (MIRA 18:7)

APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001032710014-2"

L 16848-66 EWT(1)/EWP()/EEC(k)-2/FCC/EWA(d)/EWA(h) GW
ACC NR: AP6005551

SOURCE CODE: UR/0030/66/000/001/0106/0107

AUTHOR: Masevich, A. G. (Doctor of physics-mathematical sciences)

ORG: none

TITLE: International school for satellite observers

SOURCE: AN SSSR. Vestnik, no. 1, 1966, 106-107

TOPIC TAGS: satellite photography, satellite, triangulation, photographic astronomy, artificial satellite orbit, aerospace personnel, atmospheric density, artificial satellite observation, space surveillance, orbit calculation, star chart, camera

ABSTRACT. The Astronomical Council of the Academy of Sciences USSR, in cooperation with the Tashkent Astronomical Observatory, has organized an international school in Tashkent for satellite observers. The course lasted from 7 to 15 September 1965, in accordance with the plan of mutual cooperation between the academies of sciences of the socialist countries on the problem: "Scientific research through satellite observation." Participating in the studies were 40 young specialists from Bulgaria, Hungary, East Germany, Mongolia, Czechoslovakia, Poland, and the Soviet Union.

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L 16848-66
ACC NR: AP6005551

A. G. Masevich (Astronomic Council) dealt with the study of the density¹² of the atmosphere at various altitudes according to the results of the exact photographic observations of satellites. He paid particular attention to periodic and sudden fluctuations of the density of the atmosphere connected with solar activity. The lecture included a survey of the works of Soviet, British, American, and German scientists in this field from data of observations of more than 50 satellites.

The second series of lectures, dealing with the methodology of exact photographic observations of satellites, was begun with a survey of the means of observation. A. M. Losinsky (Astronomic Council) told about special cameras used in the Soviet Union and abroad for photographing satellites and demonstrated a modernized NAFA-3-c camera equipped with a programming device. His second lecture dealt with special aspects of satellite observations and how they differ from star and planet observations. He related the experience of the Zvenigorod Station of the Astronomical Council and gave the audience a number of practical suggestions. B. V. Yasevich gave a lecture on the ways and means of ensuring that the observation stations have moments of exact time.

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ACC NR: AP6005551

5

Lectures and practical exercises were conducted by scientists of the Astronomical Council of the Institute of Theoretical Astronomy, the Main Astronomical Observatory (Pulkovo) of the Academy of Sciences USSR, and the Tashkent Observatory of the Uzbek Academy of Sciences.

The first series of lectures dealt with the use of the data of exact photographic observations of satellites for the solution of important scientific problems. The lecture on space triangulation, a new branch of geodesy engendered by the creation of satellites, was given by D. Ye. Shchegolev (Pulkovo Observatory). He outlined the most recent results of synchronous photographic observations conducted in the USSR and the countries cooperating with it, as well as the USA and France; he also sketched the future prospects of this new branch of science. G. A. Chebotarev (Institute of Theoretical Astronomy) discussed the use of exact photographic observations of satellites for obtaining a more accurate theory of the Earth's figure. The students were acquainted with newly determined values of coefficients of high-order members in analyzing the gravity potential, which were obtained on the basis of long series of observations of numerous satellites.

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ACC NR: AP6005551

The third series of lectures included topics on the astronomical processing of negatives. The existing methods of the photographic astrometry were described by A. P. Deytch (Pulkovo Observatory). His second lecture dealt with stellar catalogs, which provide the celestial coordinates for comparison stars. Many of the existing catalogs were demonstrated, including the atlas with enumerated stars, recently published in the USSR, which was compiled by the Soviet Geodetic Service especially for facilitating the processing of satellite photos. A. A. Kiseley (Pulkovo Observatory) discussed the peculiar features of the astrometric processing of satellite photographs and the possibilities of more exact determination of satellite position, by taking into account some deficiencies of the cameras.

Finally, in the last series of lectures, staff members of the Institute of Theoretical Astronomy analyzed the problems of computing the elements of satellite orbits according to observations (Yu. V. Batrakov), of the ephemerides of satellites according to the elements of their orbits determined by electronic computers (A. S. Sochilina), and ephemerides of satellites at the stations by using tables (I. I. Belozemtsev).

Card 4/5

L 16848-66
ACC NR: AP6005551

Practical exercises were conducted every day along with the lectures. The students made observations in groups of 5 or 6 under the guidance of an experienced teacher. They received time radio signals, photographed the satellites, processed the photographs, identified the stars, made measurements, fixed the continuous-action cameras, computed moments of observation and satellite coordinates. The weather was clear, and the bright Echo balloon satellite passed high in the cloudless Tashkent sky regularly, twice in 24 hours, during the evening twilight, thus creating the most favorable conditions for the novice observers.

The international school for satellite observers is a new form of cooperation between scientists of the Soviet-bloc countries. The successful results of the Tashkent school encourage future continuation of such efforts. *(AID PRESS: 4105-7)*

SUB CODE: 22, 14, 03, 08 / SUM DATE: nov

Card 5/5 BK

MASEVIC^H, M.G., kand.yuridicheskikh nauk; BAYSALOV, S.B., kand.yuridicheskikh nauk; YEREMOV, A.Ye., kand.yuridicheskikh nauk.

Monographic study on "Legal questions in the organization and operation of state farms" by M.A. Vaksberg and others. Reviewed by M.G. Masevich, S.B.Baisalov, A.E.Brenov. Vest.AM Kazakh.SSR 16 no.7:105-107 Jl '60. (MIRA 13:8)
(State farms) (Vaksberg, M.A.)

NEKRASOVSKIY, A.E., prof.; LOKSHIN, B.S., dots.; MASSEVICH, M.V., inzh.

Multiple-plow machinery for mining very thin steep by pitching
coal seams. Ugol' Ukr. 3 no.10:10-13 0 '59.
(MIRA 13:2)

1. Dnepropetrovskiy gornyy institut.
(Coal mining machinery)

NEKRASOVSKIY, Ya.E.; LOKSHIN, B.S.; MASSEVICH, M.V.; GRISHKO, N.T.

Mechanization of the mining of thin flat coal beds. Ugol.
prom. no.5:51-53 S-0 '62. (MIRA 15:11)

1. Dnepropetrovskiy gornyy institut im. Artema.
(Coal mines and mining)

NEKRASOVSKIY, Ya.E.; LOKHIN, B.S.; PAKHITIN, V.S.; MACEVICH, M.V.

Complex of small-size oil pumps for maintaining the pressure
of cheap thin oil gasses. Inv. No 42136139-164.
(MIRA 1811)

MASNEVICH, TS.G.

Acid-base equilibrium in patients with stomach diseases. Izv.
AN Kazakh.SSR. Ser.kraev.pat. no.6:41-50 '50. (MLRA 9:8)
(STOMACH--DISEASES) (PHYSIOLOGICAL CHEMISTRY)

MASEVICH, Ts. G.

USSR/Pharmacology. Toxicology. Toxicology.

V-10

Abs Jour : Ref Zhur-Biol., No 6, 1958, 28286

Author : Masevich Ts. G.

Inst : Not given.

Title : Therapy by Sleep of Lead Intoxications.

Orig Pub : Zdravookhr. Kazakhstana, 1956, No 1, 22-27

Abstract : A state of hypertonia was observed in acute lead intoxication with a maximal intensity of lead induced colic. By VND irritation and emotional reactions were observed in these patients. Fifty-five persons suffering from acute lead intoxication were treated with sleep for a period of 5 days (barbamil in doses of 0.2-0.3 g or luminal in doses of 0.1-0.29 3 times a day). A general

Card 1/1

USSR/Pharmacology. Toxicology. Toxicology.

V-10

Abs Jour : Ref Zhur-Biol., No 6, 1958, 28286.

Abstract : improvement in the condition of the patients
and a normalization of their blood content
was noted.

Card 2/2

MASEVICH, TS.G., LISOVSKIY, V.A. (Leningrad)

Work of the gastroenterology section of the Leningrad Branch of
the Botkin All-Union Society of Therapeutists in 1957. Term.
arkh. 30 no.6:94-95 Je '58 (MIRA 11:7)
(ALIMENTARY CANAL--DISEASES)

MASLEVICH, TS.G., kand.med.nauk

Electrophoretic studies on proteins and digestive capacity of the
gastric juice in patients with peptic ulcer and chronic gastritis.
Terap.arkh. 31 no.12:10-16 D '59. (MIRA 13:3)

1. Iz kliniki propedevtiki vnutrennikh zabolеваний (zav. - prof. S.M. Ryss) Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta.

(PEPTIC ULCER physiol.)
(GASTRITIS physiol.)
(GASTRIC JUICE)
(PROTEINS chem.)

MASEVICH, TS.G., kand.med.nauk

Significance of protein fraction in gastric juice in the functional diagnosis of stomach diseases. Trudy LSGMI 59:280-284 '60.
(MIRA 14:9)

1. Klinika propedevtiki vnutrennikh zabolеваний Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta (zav. klinikoy - prof. S.M.Ryss).
(GASTRIC JUICE) (PROTEINS) (STOMACH--DISEASES)

MASEVICH, TS.G., kand.med.nauk

Influence of ganglion-blocking agents (tetammon-I and hexonium)
on basic functions of the stomach under experimental and clinical
conditions. Trudy LSGMI 59:285-289 '60. (MI:A 14:9)

1. Klinika prospedektiki vnutrennikh zabolеваний Leningradskogo
sanitarno-gigienicheskogo meditsinskogo instituta (zav. klinikoy -
prof. S.M.Ryss).

(STOMACH) (AUTONOMIC DRUGS)

MASEVICH, TS., G.; TUGOLUKOV, V. N.

Quateleron and fubromesgan in the treatment of peptic ulcer. Terap.
(MIRA 15:2)
arkh. no.12:68-76 '61.

1. Iz kafedry propedevtiki vnutrennikh zabolеваний (zav. - chlen-korrespondent AMN SSSR prof. S. M. Ryss) Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta, laboratori po gastro-enterologii Akademii meditsinskikh nauk SSSR i Instituta tonkoy organicheskoy khimii Akademii nauk Armeyskoy SSR (dir. - akad. A. L. Madshoyan)

(PEPTIC ULCER) (PARASYMPATHOLYTICS)

MACHICK, T.S. G.

Problems in the etiology and pathogenesis of chronic gastritis.
Vest. AMN SSSR 19 no.10:43-55 (1974) (USSR 17:6)

Leningradsky gentergopologicheskiy meditsinskii institut
laboratory of gastritis. Leningrad - USSR

RYSS, S.M.; MASEVICH, TS.G.

Precancerous diseases of the stomach. Vest. AMN SSSR 20 no.12:
10-19 '65.
(MIRA 19:1)

1. Leningradskiy sanitarno-gigiyenicheskiy meditsinskij institut,
laboratoriya gastroenterologii AMN SSSR.

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4. Your agency is responsible for assuring the security of this document while in its possession.

COUNTRY : U.S.
CATEGORY :

ABS. JOUR. : Rambler, Inc., 1952, do.

ABSTRACT :

DIRS, POS. :

ABSTRACT : *The*
first part of this report concerns the
activities of the Communist Party of the
Soviet Union in 1952. It discusses the
political situation in the Soviet Union,
the economic situation, the cultural
situation, and the international
situation. The second part of this report
concerns the activities of the Communist
Party of the Soviet Union in 1952.

CONT.

MASEWICZ, Walerij

Search for means against socially unjustified dismissal of employees
Praca zabezp spol 4 no. 4:1-7. Ap. '62

MASEWICZ, Walery

The concept of guilt in labor legislation. Praca zabezpieczona
4 no. 9/10: 13-30 S-0 '62.

MASEVICZ, Walery

"Labor legislation; provisions, decisions and explanations"
by Jozef Zielinski. Reviewed by Walery Masevicz. Praca
zabezp spol 5 no.12461-63 D'63.

12-12-67 AWT(1)/MM(m)
ACC N# AT6025456

SOURCE CODE: UR/2649/65/000/222/0064/0070

AUTHOR: Miseyev, L. M.

CRC: none

TITLE: Secondary instability of the boundary layer

SOURCE: Moscow. Institut inzhenerov zheleznozdrozhnogo transporta. Trudy, no. 222, 1935. Nekotroyye voprosy geometrii i gidrodinamiki (Some problems in geometry and hydrodynamics), 64-70

TOPIC TAGS: boundary layer theory, laminar flow, turbulent flow

ABSTRACT: The article starts with a statement of the general problem of hydrodynamic instability. The transition from laminar to turbulent flow may be considered from the viewpoint of the development of infinitely small perturbations distributed over the whole field of flow. It has been demonstrated and experimentally verified that the boundary layer is unstable with respect to Tolmin-Schlichting perturbations, which are waves propagating downstream along the flow. In the case of neutral perturbations, the amplitude of the carrier wave remains constant. Theory gives a value of approximately 420 for the critical Reynolds number. The article proceeds to set up a system of differential equations describing the problem of the instability of the boundary layer. The solution is carried out by the method of Kantorovich, which

Card 1/2

L 09L22-67

ACC NR: AT6025456

involves the reduction of the system of equations in partial derivatives to a system
of ordinary differential equations. Orig. art. has: 10 formulas and 1 figure.

SUB CODE: 20/ SUEM DATE: none/ ORIG REF: 004/ OTH REF: 004

Card 2/2

130000-SC-04007//~~REF ID: A6413~~-S/AMN(p) //~~PETR~~

ACCESSION NO. 44-6788 BOOK EXPLOITATION

S/

REVIEWED BY: ~~M. V. KLEKOVICH~~ ~~M. V. KLEKOVICH~~ ~~M. V. KLEKOVICH~~

REVIEWED BY: ~~M. V. KLEKOVICH~~ ~~M. V. KLEKOVICH~~ ~~M. V. KLEKOVICH~~

REVIEWED BY: ~~M. V. KLEKOVICH~~ ~~M. V. KLEKOVICH~~ ~~M. V. KLEKOVICH~~

Hydrofoil boats in marine transportation (Transportnye veshchaniya pod redakcijey M. V. Klekovich). Moscow: Izdatelstvo Transportnogo i gospromstva SSSR, 1964. 256 p., illus., tables. Price 1.20 rubles. Inserted: 1,000 copies printed.

TOPIC/PAGE: hydrofoil boat, hydrodynamics

PURPOSE AND COVERAGE: This book presents information on hydrofoil boats, the basic features of their design, calculation of hydrofoils, and the limits of their use. It considers in detail the problems of the hydrodynamics of hydrofoils, describes the data on selection of the basic elements of foils and their position in relation to the hull, and cites other information required by hydrofoil boat designers. The book is intended for a wide audience of engineers and technicians of design bureaus and plants of the river and maritime flotillas and can also be useful for students of higher and secondary special educational institutions.

TABLE OF CONTENTS: Provided in the book.

Curator: [Signature]

1-200513
ACCUMULATED NR: 1146497.96

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Ch. VI. The stability of motion of hydrofoil boats -- 160
Ch. VII. Methods of determining the basic characteristics of hydrofoil boats -- 177
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SUB CODE: AAC SUBMITTED: 20Jun64 NR REF SOV: 031

OTHER: 029 DATE ACMD: 22Oct64

Conf 2/2

MUKHINA, O.N.; KAPNIK, G.M.; MASHTEV, M.I. (Moskva)

Study of contact specimens from the mucosa of the rectum and
the sigmoid in dysentery. Klin.med.33 no.5:51-57 My '55.
(MLRA 8:9)

1. Iz l-y Klinicheskoy infektsionnoy bol'nitsy (glavnyy vrach
N.G. Zaleskver)

(DYSENTERY, manifest.

mucosa of rectum & sigmoid)

(MUCOUS MEMBRANE, in various dis.

mucosa of rectum & sigmoid in dysentery)

(RECTUM, in various dis.

mucosal changes in dysentery)

(COPRO, in various dis.

same)

MASEYEV, M.I.

KAPNIK, G.M.; MASEYEV, M.I.

New instrument for taking smears from mucous membrane of the
distal segment of the large intestine. Lab. delo 3 no.1:50-52
Ja-F '57 (MIRA 10:4)

1. Iz infektsionnoy gorodskoy klinicheskoy bol'nitsy no.1 (glavnnyy
vrach N.G. Zaleskver), Moskva.
(MEDICAL INSTRUMENTS AND APPARATUS)

1. MASEYEV, V.
 2. USSR (600)
 4. Agriculture
 7. Collective farm apiary. Moskva, "Mosk. ratochii." 1951
9. Monthly List of Russian Accessions, Library of Congress, January 1953. Unclassified.

MASEYEVSKIS, B

Distr: bE2c/bE3d

1 Kinetics of oxidation of aqueous suspension of hydrated iron oxide with oxygen in dynamic conditions. B. Masejevskis and L. Liepins. Latvijas PSR Zinātņu Akad. Vairākums, No. 1, 80-95. - The gasometric method was used. The effect of mixing temp., original concn. of Fe₂O₃, excess of alkali and also oxidized suspension and Fe₂O₃ on the velocity were investigated. The velocity of oxidn. increases sharply with the rate of mixing, increases slightly with temp., in the initial stages is independent of Fe₂O₃, and decreases with increase in excess of alkali. Addn. of oxidized suspension and Fe₂O₃ does not influence the velocity. No ferro-ferrites are formed during the oxidn. The process of oxidn. is controlled by diffusion but the character of the latter changes with time. Increase in the excess of alkali decreases the velocity of oxidn. more than that due to the decrease in solv. of oxygen.

A. LIEPINS

POLUKHIN, P. I.; MASEROV, V.A.; GUN, G.Ya.

Effect of external parts on an increase in width during longitudinal
rolling. Izv. vuz. ucheb. zav.; tsvet. met. 5 no.5:141-144 '62.
(MIIA 15:10)

1. Moakovskiy institut stali, kafedra prokatki.
(Rolling (Metalwork)) (Deformations (Mechanics))

15-57-7-9390

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 7,
p 94 (USSR)

AUTHOR: Masgutov, R. V.

TITLE: Columbite From a Central Kazakhstan Deposit (Kolumbit
iz odnogo mestorozhdeniya Tsentral'nogo Kazakhstana-
in Kazakhstan)

PERIODICAL: Izv. AN KazSSR, ser. geol. 1956, Nr 25, pp 107-112

ABSTRACT: Small disseminations of columbite have been found in
albitized granites and in pegmatites genetically
associated with the granites. In many places the
columbite, together with other rare-earth minerals,
have formed small schlieren-like accumulations. Co-
lumnar crystals of columbite, with very well developed
(010), (011), (111) and, rarely, (001) faces, are
encountered in the albitized granites. Lamellar and
occasionally tabular crystals of columbite are associ-

Card 1/2

15-57-7-9,90

Columbite From a Central Kazakhstan Deposit (Cont.)

ated with the pegmatites. These crystals are often found in parallel intergrowths along the (010) face. The columbite is black, with metallic luster, a hardness of 6, and with conchoidal fracture; it is brittle and has a specific gravity of 4.8 to 5.0. It is grayish white in reflected light and weakly anisotropic. The chemical compositions for columbites from the albited granites and from the pegmatites respectively are $\text{Nb}_2\text{O}_5 + \text{Ta}_2\text{O}_5$ 73.0 and 73.2 percent; FeO 4.8 and 4.1 percent; MnO 12.9 and 14.3 percent; TiO_2 1.3 and 1.6 percent; total 94.3 and 93.2 percent. The formula for this mineral is $(\text{Mn}, \text{Fe})(\text{Nb}, \text{Ta}, \text{Ti})_2\text{O}_6$. Spectral analysis of the columbite has shown Cs and Zr about 1 percent; Sn 0.01 percent and Cu 0.0003 percent.

Card 2/2

K. N. Kyabicheva

MASQUPOV, R.V.

Some data on martite formation Izv. AN Kazakh. SSR. Ser. geol.
no.1:95-98 '57. (MLRA 10:7)
(Kazakhstan--Martite)

MASGUTOV, R.V., kand.geologo-mineralogicheskikh nauk

Druses of cap quartz from central Kazakhstan. Sbor.nauch.trud.
KazGMI no.18:159-163 :59. (MIRA 15:2)
(Kazakhstan- Quartz)

MASCUTOV, R. V.

Albitization of granites. Izv. AN Kazakh. SSB. Ser. geol. no.1:48-
54 '60. (MIRA 13:8)
(Kazakhstan--Granite)
(Kazakhstan--Albite)

MASGUTOV, R.V.

Types of albitized gneisses as revealed by the study of some
sections of albitized granites in central Kazakhstan. Izv.
AN Kazakh. SSR. Ser. geol. no. 3: 55-70 '60. (MIRA 13:11)
(Kazakhstan--Granite)

MASGUTOV, R.V.

Concerning a case of pegmatite formation. Trudy Inst.geol.
nauk Akad.Kazakh.SSR no.48 52-54 '61. (MIRA 14:10)
(Kazakhstan—Pegmatites)

MASGUTOV, A.V.

Color of pink quartz. Izv. AN Kazakh. SSR. Ser. geol. no. 1-2
'62. (MIRA 1972.)
(quartz)

MASGUTOV, R.V.; TIKHONOV, V.V.

Conference on the problems of geology, geochemistry, prospecting methods and the estimation of the new types of tantalum and niobium deposits. Izv. AN Kazakh. SSR. Ser. Nauk. prirodoznan. 1962, No. 1. Institute of Geology and Mineral Resources, Ministry of Geology, USSR.

MASH, D.I.; MOROZOV, V.V.; STARUNOV, V.S.; TIGANOV, Ye.V.; FABER, N.M., I.I.

Induced Mandelstam-Brillouin scattering in solid amorphous bodies and in fluids. Pis'. v red. Zhur. eksper. i teor. fiz. 2 no.5:246-250 S '65. (MIR) 1965

1. Fizicheskiy institut imeni Lebedeva AN SSSR. Subv. na 19, 1965.

MASH, D.I.; MOROZOV, V.V.; STAROV, V.S.; PASEL'NIKOV, ...

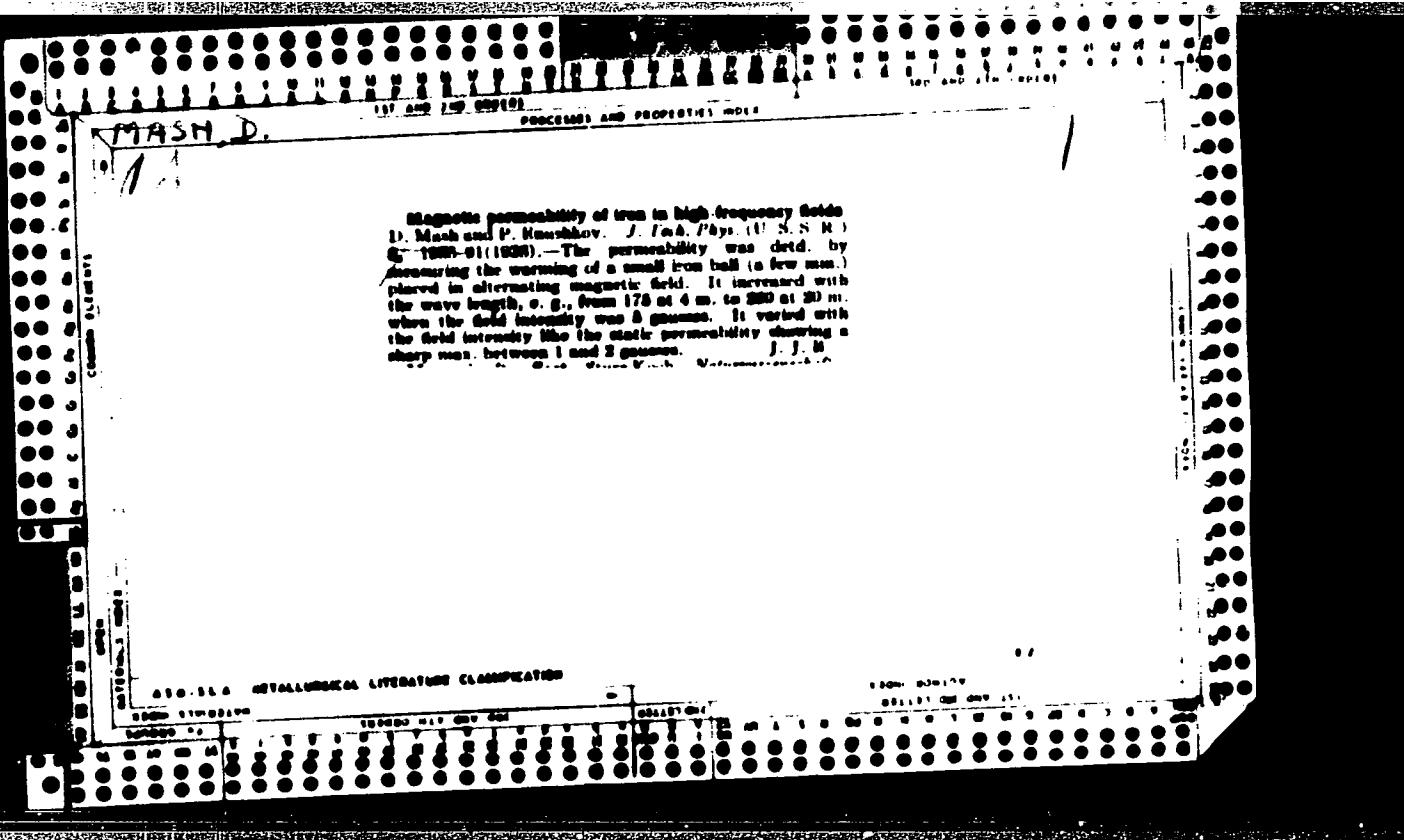
Forced Mandel'stam-Brillouin scattering in gases. Pis'm. v red. fizich.
eksper. i teoret. fiz. 2 no.12:504-506 SSSR 1965.

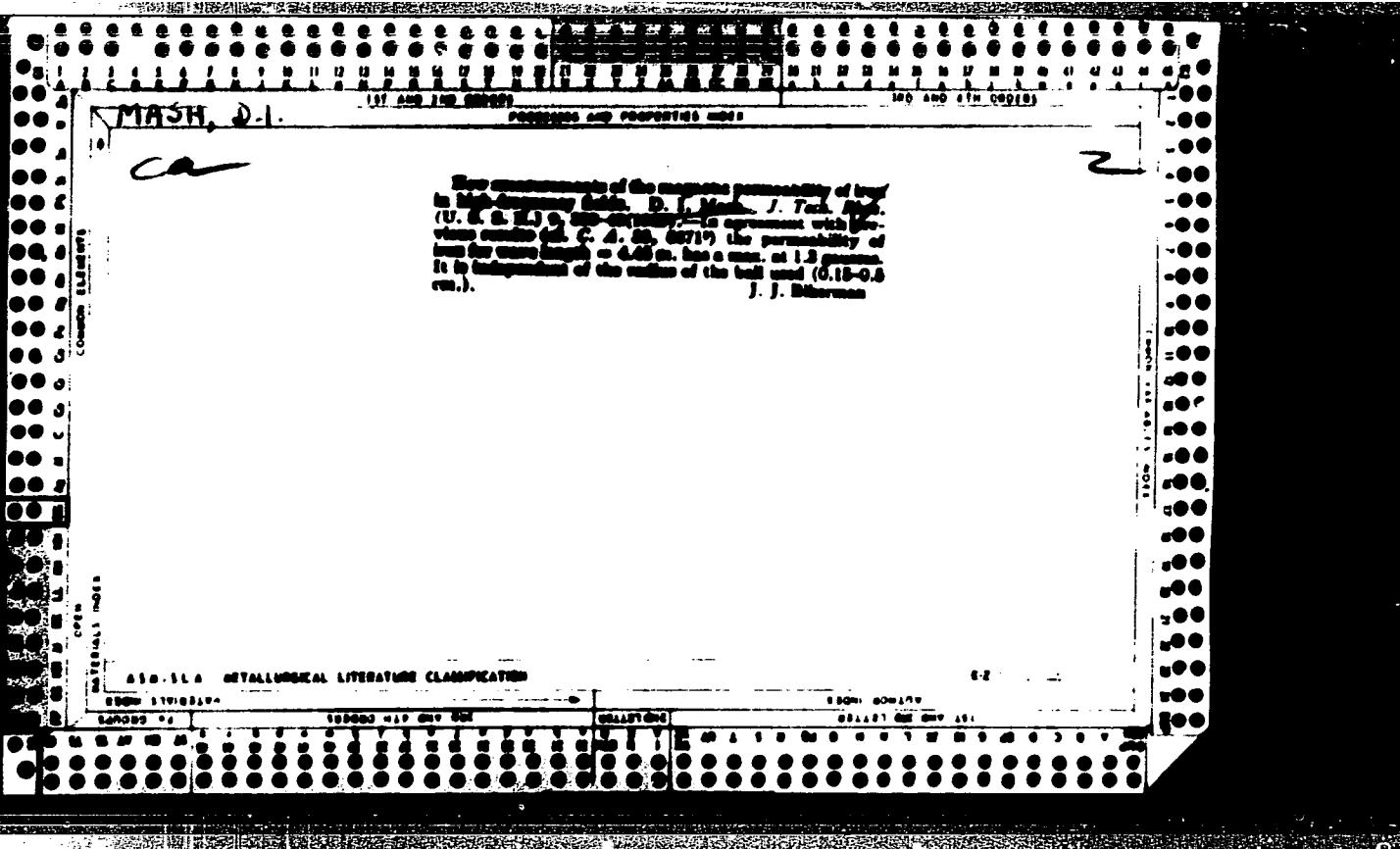
I. Fizicheskiy institut imeni Lebedeva AN SSSR. Submitted Nov. 9,
1965.

MASH, D.I.; STARUNOV, V.S.; TICANOV, Ye.V.; FABELINSKIY, I.I.

Intensity and width of the fine structure components of the
line of scattered light in fluids and the damping of
hypersound. Zhur.eksp. i teor.fiz. 49 no.5:1764-1773 S '65.
(MIFI 19:1)

I. Fizicheskiy institut im. N. N. Lebedeva AN SSSR. Submitted
July 20, 1964.





MASH

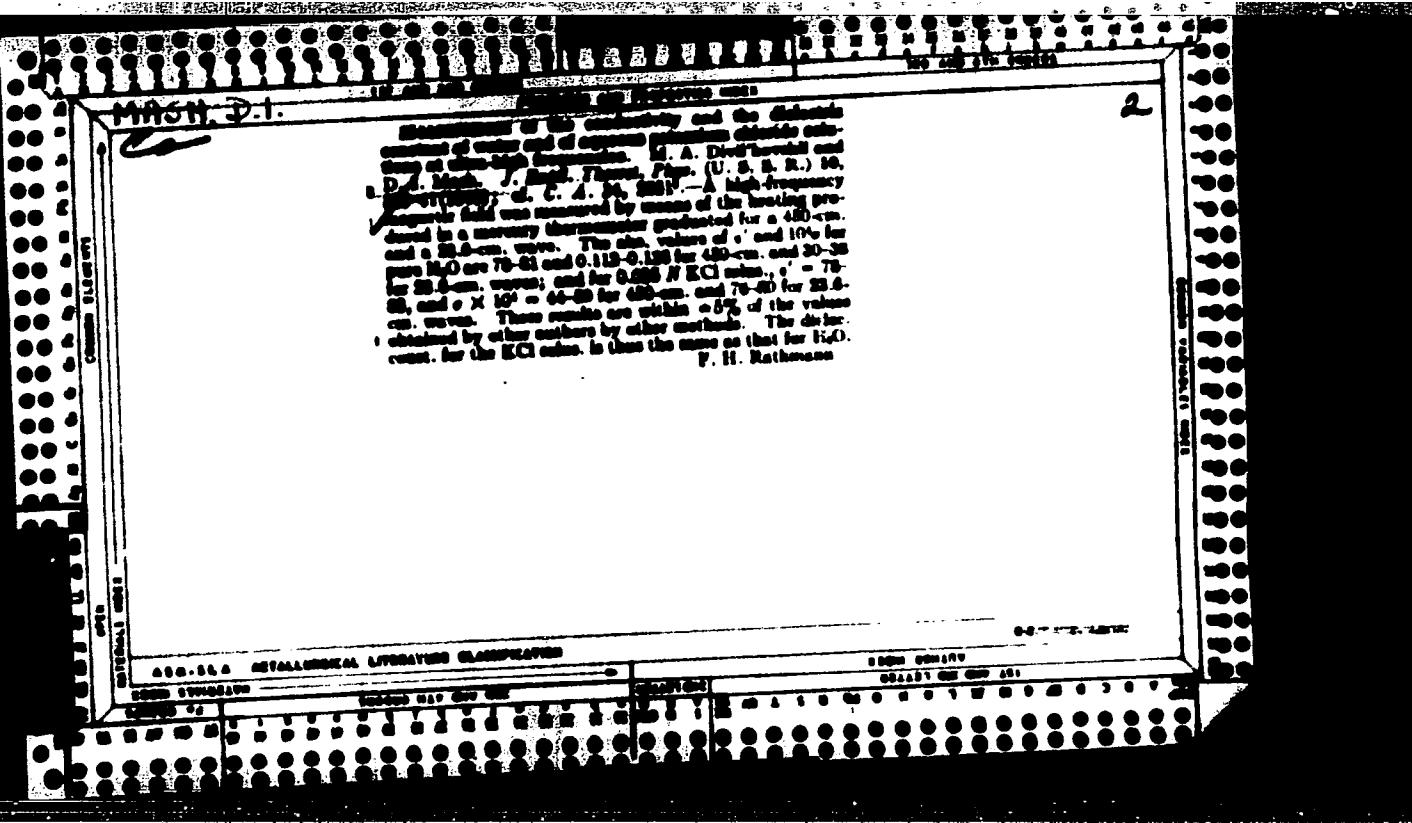
2

Measurement of the diffusion constant and the
conductance of water and of an aqueous solution of potassium
chloride at absolute temperatures. M. A. Divinskii
and D. A. Marsh. *J. Phys. (U. S. S. R.)* 2, 336-414
(1940). See C. A. 35, 2201.
F. H. Reithmane

AIAA-AIA METALLURGICAL LITERATURE CLASSIFICATION

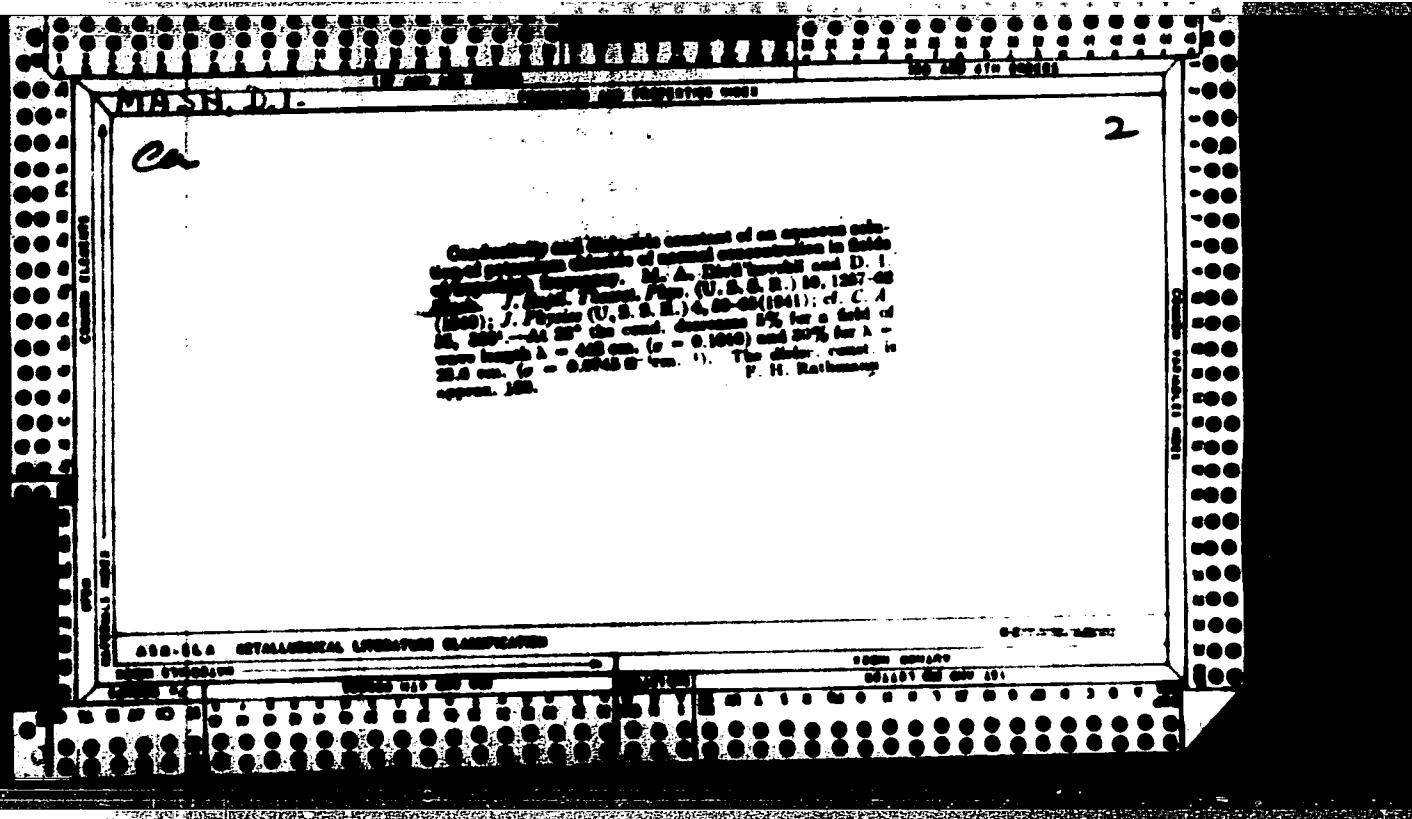
0-27-072-1250

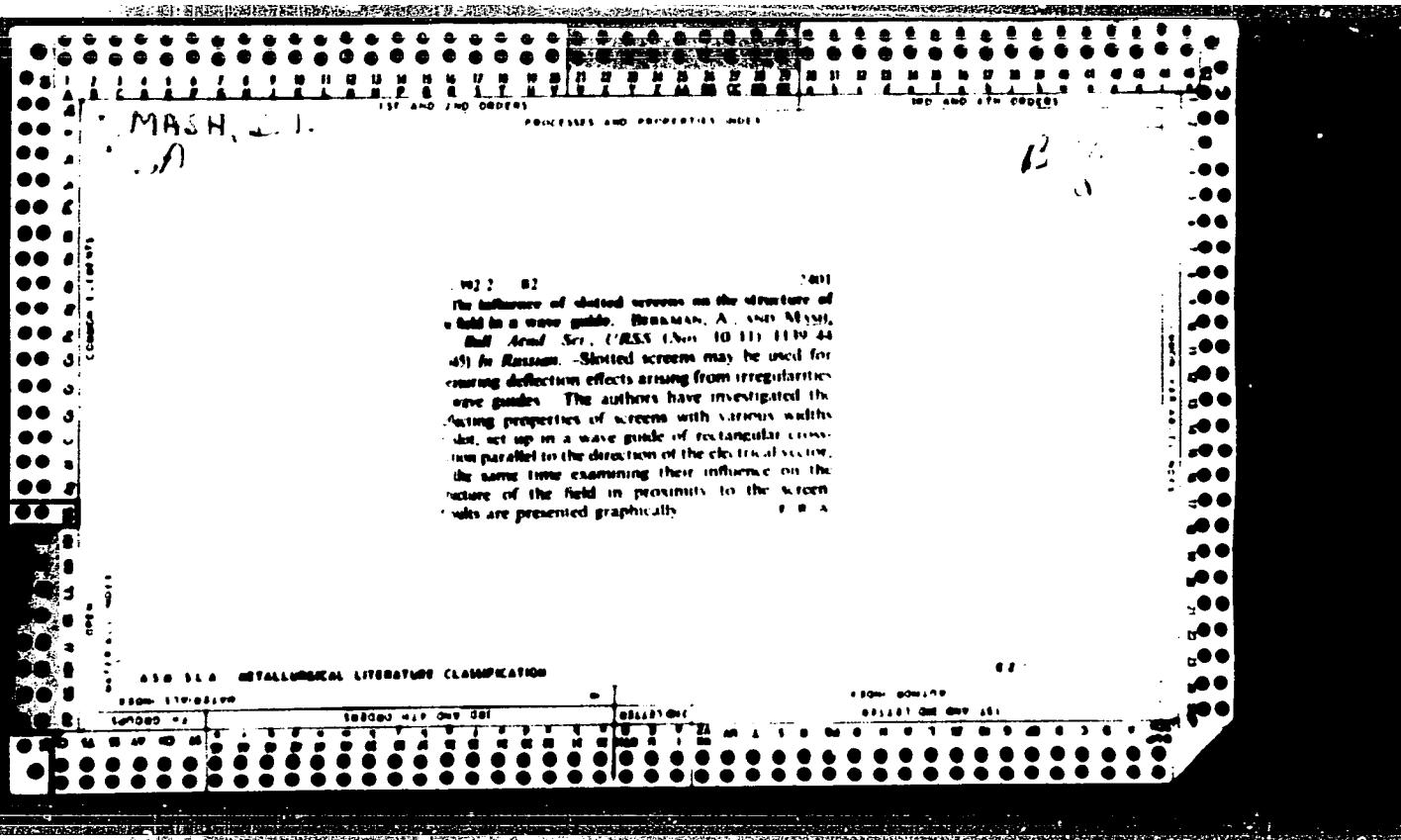
STANDARD FORM NO. 101-1000 100000 MAY 1964 EDITION 100000 MAY 1964



MASH, D.L.

Dispersion and absorption of electromagnetic waves in heavy water. M. V. Davydovskii and D. I. Meshl. *Compt rend. acad. sov. U.R.S.S.* 27, 901 (1940). The dielectric const. and cond. of D₂O were deduced by the method of D. (C. A. 34, 2061), and compared with the values previously obtained by the same method for H₂O. The results were (λ in cm., ϵ' , dielec. const., ϵ'' , cond. $10^3 \Omega^{-1} \text{cm.}^{-1}$ and polar. cond. $10^3 \Omega^{-1} \text{cm.}^{-1}$) D₂O, 651, 21.37, $\epsilon' \sim 0.38$, $\epsilon'' \sim 1.70 \pm 0.04$, 0.14, 23.6, 21.2, 20.5, ~ 0.8 , 0.02 ± 0.14 , 0.05 ± 1.0 , 48.0 ± 1.0 , 11.0, 45.1, 19.12, $\sim 0.44 \pm 0.01$, $\sim 0.120 \pm 0.001$, 23.6, 19.4, 78.7 ± 0.9 , 5.30 ± 0.13 , $\sim 37.5 \pm 0.9$. The high ionic cond. of D₂O indicates that the D₂O sample may be contaminated with a trace of acid. The time of relaxation for D₂O is slightly higher than the value expected from a comparison of the viscosities of D₂O and H₂O.





Mit. h. D. I.

Losses and dielectric permeability of barium titanate
in a field of high frequency. D. I. Mash. *J. Exptl. Theoret. Phys. (U.S.S.R.)* 17, 537-9 (1947) (in Russian).—
The real and the imaginary parts, ϵ' and ϵ'' , of the dielectric const. were detd. by measuring, with the aid of pellets of appropriate org. substances of known low m.p. (21.0-42°) placed on spheres of BaTiO₃ (diam. 0.715 and 0.528 cm., wt. 0.880 and 0.320 g., resp.), the rate of heating 3.7% ($\tau = \text{time}$) of the sphere in a magnetic and an elec. field of amplitudes H_0 and E_0 , measured independently, by the method of M. A. Divil'govskii (cf. D. and Philippov, *Izdat. S. SSSR* (1935); D. and Mash, *C. A.* 35, 2051) giving ϵ'' and $\epsilon''/(\epsilon')^2 + (\epsilon'')^2$, in the magnetic and elec. field, resp. For the wave length $\lambda = 21.7$ cm., ϵ' is of the same high order of magnitude (1250-1420) as for long waves; ϵ'' is considerably higher; the 0.528-cm. sample gives $\epsilon'' = 200$, $\text{tg } \delta = \epsilon''/\epsilon' = 0.2$. Two samples of TiO₂ (Koblium rutile crystal and pressed tech rutile powder), at $\lambda = 21.4$ cm., gave practically the same ϵ' (~100) but markedly different ϵ'' (20.7 and 1.72) and $\text{tg } \delta$ (0.2 and 0.017), due, no doubt, to Fe and other impurities in the industrial sample. N. Thom

Physics Inst. im. P. N. Lebedev, AS USSR

MASH, D.

33

Measurement of Temperature Dependence of Dielectric Permeability and Angle of Loss of Dielectrics in the Centimeter-Wave Range. (In Russian). D. Mash, L. Mayants, and I. Fabelinskii. *Zhurnal Tekhnicheskoi Fiziki* (Journal of Technical Physics), v. 19, Oct 1949, p. 1192-1198.

Presents theoretical bases of method of exact determination of the above range. Results of determination in glycerin at 122 cm. are tabulated and charted. Experimental method is described.

ASA SCA METALLURGICAL LITERATURE CLASSIFICATION

SC-1000-1000

MISH, E., MAYANTZ, I. and FABELINSKIY, I.

122 22

Izmereniya temperaturnoy zavisimosti dielektricheskoy pronitsaemosti i uchebnye materialy po dielektrikov v pole Sistemnykh voln. Zhurnal Tekhn. Fiziki, 1949, vyp. 11, s. 1122-1125.

SC: Ietopis' Zhurnal'nykh Litsey, Vol. 45, Moskva, 1949

USSR/Physics - Dielectrics

Radar Waves Oct 49

"Measurement of the Temperature Dependency of the Dielectric Constant and the Loss Angle in a Field of Centimeter Waves," D. Mash, L. Mayants, I. Fabelinskii, Lab of Oscillations imeni Acad. L. I. Mandel'shtam, Phys Inst imeni P. N. Lebedev, Acad Sci USSR, 7 pp.

"Zhur Tekh Fiz" Vol XIX, No 10

Gives theory of a method for precise determination of ϵ' and ϵ'' in the ultrashort wave band. Introduces results of measurement of temperature dependency of

151F90

USSR/Physics - Dielectrics

(Contd) Oct 49

the dielectric constant and loss angle for glycerin using a 3.22-cm wave. Submitted 10 Aug 48.

151790

USSR/Physics - Polarization plane rotation, ferrites

FD-2987

Card 1/2 Pub. 146 - 28/28

Author : Mash, D. I.

Title : Rotation of the plane of polarization in a longitudinal magnetic field for wave length of 3 centimeters

Periodical : Zhur. eksp. i teor. fiz., 29, September 1955, 390-392

Abstract : With the development of radar and the appearance of ferromagnetic dielectrics (Ya. G. Dorfman, Izv. AN SSSR, Ser. fiz., 16, 412, 1952) the magnetic rotation of the plane of polarization (Faraday effect) has acquired great practical significance and is finding extensive application in the technology of superhigh frequencies, the Faraday effect being employed to create microwave converters [pereklyuchatel'], one-directional waveguide systems, electrically controlled attenuators, devices for measuring weak magnetic fields, for obtaining circular polarization, for modulating high frequencies, for fluctuating beams in radar, for automatically regulating high-frequency signals, etc. (the use of the Faraday effect in the centimeter range limits high-frequency losses introduced by ferromagnetic semiconductors and ferrites used as a rotating medium); therefore it has become very important to investigate ferrites of industrial manufacture with the purpose of clarifying their possible application and practical utilization of magnetic rotation

Card 2/2

Pub. 146 - 28/28

FD-2987

Abstract

: of the plane of polarization in the centimeter range. The present writer investigates oxifers RCh-10, 15, 50 and nickel-zinc ferrites NTs-100, 250, 500, NTs-L, NTs-L₂, NTs-31, NTs-38, NTs-40, NTs-41, NTs-43, and NTs-45 in the form of thin discs completely filling up a waveguide and in the form of thin cylinders disposed along the axis of a cylindrical waveguide, the measurements being conducted for wave length 3 cm by a method similar to that described by Ya. G. Dorfman (op. cit.). Comparatively less losses were indicated by the ferrites NTs-500, NTs-250, and NTs-L, but the best results were obtained with powdered ferrite NTs-500 annealed at a temperature of 1000°C and rolled onto a polystyrene or quartz tube with external diameter 7.0 mm and internal diameter 5.7 mm. The writer presents the dependence of the angle of turn of the plane of polarization phi in degrees and the loss in decibels upon the strength H of the external longitudinal magnetic field for a specimen of the powdered ferrite NTs-500 in a quartz tube of length 45 mm and also for a tube of length 77 mm. Two references: e.g. C. Hogan, Bell System, 31, 1, 1952.

Institution

: Physical Institute im. P. N. Lebedev, Academy of Sciences USSR

Submitted

: May 6, 1955

"APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001032710014-2

MASH D 1

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[Signature]

APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001032710014-2"

AUTHOR:
TITLE:

PERIODICAL:
ABSTRACT:

MASH,D.I.
The Revolution of the Plane of Polarization in the Magnetic
Longitudinal Field (Vrashcheniye ploskosti polarizatsii v
prodol'nom magnitnom pole (effekt faradeya) v diapazone PA -
millimetrovikh voln. Russian).
Zhurnal Tekhn. Fiz., 1957, Vol 27, Nr 2, pp 360 - 363 (U.S.S.R.)
Received: 3 / 1957
Reviewed: 4 / 1957.
The possibilities of making use of industrial ferrites (which are
being used within the domain of radiofrequencies) for the magnetic
revolution of the plane of polarization described by HOGAN,C.L., Bell Syst. in
accordance with the method described by HOGAN,C.L., Bell Syst. in
31, 1, 1952. Losses were determined by measuring the domain of milli-
meter waves, are investigated. Measurements within the domain of milli-
output of ferrite. Ellipticity of the system both in the case of the magnetic
measuring the maxima and the minima was determined by HOGAN,C.L., Bell Syst. in
the output wave conductor by 90°. The types of the power at the
vestigated are given and a diagram shows the curve of the ferrites in-
pendence of the angle of revolution of the ferrites in-
the exterior magnetic field. The values for high frequency plane on
are given in a table. They are not high and do not depend upon
the exterior magnetic field. The wave at the output of the system
ains linearly polarized within the whole domain of the fields
ated. Experimental results show that the ferrites B-1000

PA - 2134

The Revolution of the Plane of Polarization in the Magnetic
Longitudinal Field.

and NT-500 may be used within the domain of millimeter waves. Good
results were also obtained with NiMg ferrite and for the latter the
dependence of the amplitude of the output power upon the angle
of revolution of the output wave conductor at $H = 0$ is shown in a
diagram. (6 illustrations).

ASSOCIATION: Institute for Physics "P.N.Lebedev" of the Academy of Science
of the U.S.S.R.

PRESENTED BY:

SUBMITTED: 6.7.1956

AVAILABLE: Library of Congress.

Card 2/2

30V/109-3-7-14/23

AUTHOR: Mash, D. I.

TITLE: A Ferrite Valve for the Millimetre Wave Range, Employing the Field-Shift Effect in a Waveguide (Ferritovyy ventil' dlya millimetrovogo diapazona voln, ispol'zuyushchiy effekt smeshcheniya polya v volevode)

PERIODICAL: Radiotekhnika i elektronika, 1958, Vol 3, Nr 7,
1958-959 (USSR)

ABSTRACT: A switching device for the longer waves of the millimetre wave range was designed. This consists of a small section of a rectangular waveguide which contains a plate of ferrite, and a permanent magnet which produces a transverse magnetic field (see Fig.2); the ferrite plate is covered with an absorbing film. The device gave 2 db losses in the forward direction and 50 db attenuation in

Card 1/2

SOV/109-3-7-14/23

A Ferrite Valve for the Millimetre Wave Range, Employing the Field-Shift Effect in the Waveguide

the reverse direction. The paper contains 2 photographs and 3 references; 1 of the references is Soviet and 2 are English.

ASSOCIATION: Fizicheskiy institut AN SSSR im. P. N. Lebedeva
(Physics Institute of the Soviet Academy of Sciences imeni P. N. Lebedev)

SUBMITTED: December 11, 1957.

1. Waveguides--Operation 2. Electron tubes--Design 3. Electron tubes--Performance

Card 2/2

SCV/57-58-12-1115

24(6)
AUTHOR:Mash, D. I.

TITLE:

Temperature and Frequency Dependence of the Faraday Rotation
of the Plane of Polarization in the Millimeter Wave Range
(Temperaturnaya i chastotnaya zavisimosti faradeyevskogo
vrashcheniya ploskosti polyarizatsii v millimetrovom
diapazone voln)

PERIODICAL:

Zhurnal tekhnicheskoy fiziki, 1958, Nr 12, pp 2713-2715 (USSR)

ABSTRACT:

The temperature and frequency dependence of the Faraday effect was investigated in connection with the fact that when ferrite devices are used the frequency has to be modified and that in the case of temperature variations the work is carried out in a wide range (in expeditions). The block-scheme is briefly described; the curves obtained are presented. From these curves may be seen that in the ferrites NiAl-500 and Ni-1000 the angle of rotation of the plane of polarization does almost not vary at all in a wide temperature range and that only when the Curie point is approached - in the range of from 90 to 120° - the angle of rotation of the plane of polarization drops rapidly to zero. These ferrites may be used in field- and expedition-work. In the ferrite NiAl (in the range

Card 1/2

Temperature and Frequency Dependence of the
Faraday Rotation of the Plane of Polarization in the Millimeter Wave Range
SCV/57-58-12-1-1-1
90 - 160°) and in the ferrite $\mu = 600$ (20 - 100°C) a certain
increase in the angle of rotation with increasing temperature
can be noticed. In the ferrite $\mu = 600$ an increase of the angle
of rotation of the plane of polarization with increasing
frequency was observed; this feature has been expected. There
are 7 figures and 4 references, 1 of which is Soviet.

ASSOCIATION:

SUBMITTED:

Fizicheskiy institut imeni P. N. Lebedeva AN SSSR Moskva
(Physics Institute imeni P. N. Lebedev, AS USSR, Moscow)
December 30, 1957

Card 2/2

24(0)
AUTHOR:

Mash, D. I.

SOV/53-69-1-8/11

TITLE:

Awarding of the Gold Medal imeni A. S. Popov
(Prisuzhdeniye zolotoy medali im. A. S. Popova)

PERIODICAL:

Uspekhi fizicheskikh nauk, 1959, Vol 69, Nr 1, p 157 (USSR)

ABSTRACT:

Since 1945, the Presidium Akademii nauk SSSR (Presidium of the Academy of Sciences, USSR) awarded this medal to the following scientists: Corresponding Member AS USSR Vologdin, V. P., Academician Vvedenskiy, B. A., Academician Berg, A. I., Academician Mints, A. L., Academician Leontovich, M. A., and Corresponding Member AS USSR Pistol'kors, A. A. - For 1959 it was awarded to the British Scientist Doctor Lewis Essen for the creation and use of an atomic frequency standard, and to the Soviet scientist Doctor of Physico-mathematical sciences S. M. Rytov for a number of works in the field of statistical radiophysics by using the theory of thermal fluctuations in electrodynamics and of fluctuations in eigenoscillation systems. Rytov developed a generalization of the theorem by Maiquist (Nyquist) and set up a theory of electrical fluctuations.

Card 1/2

Awarding of the Gold Medal imeni A. S. Popov

SOV/53-69-1-8/11

A formula deduced by him, which concerns a correlation function of thermal fields, makes it possible to solve a number of problems on the thermal radiation of bodies.

Card 2/2

O

2761
S/057/62/C32/004/C07/C17
B162/B102

9.257 |

AUTHORS:

Mash, D. I., and Skvortsov, V. I.

TITLE:

Frequency dependence of the components of the magnetic tensor and of the complex dielectric constant of some ferrites in the smf range

PERIODICAL: Zhurnal tekhnicheskoy fiziki, v. 32, no. 4, 1967, A35-143

TEXT: Measurements were made of $\epsilon = \epsilon' + i\epsilon''$ and an investigation was carried out into the dependence of the components ($\mu = \mu' + i\mu''$) of the tensor of magnetic permeability μ on the magnetizing field for ferrite of type 191 on a 0.8 cm wave and for the types $\bar{\mu}$ -1000 (F-1000) and $\bar{\mu}$ -20 (F-20) and 76 on 3 cm and 8 mm. Relations are given linking the variation in the complex natural frequency of the resonator when a thin ferrite plate is placed in its cavity. Conclusions: The ϵ -values measured at 3 and 8 cm, coincide within the limits of accuracy (no dispersion in this frequency range). The μ -values of non-magnetized ferrites differ at 3 cm and 8 mm ($\mu' \approx 0.6-0.4$, $\mu'' \approx 10^{-2}$; $\mu' \approx 1$, $\mu'' \approx 10^{-3}$). The relation between the components of μ of the ferrites examined and the constant

Card 1/2

Frequency dependence of the ...

S/357/62/C32/C04/C07/C17
2162/3102

magnetizing field, both at 3 cm and at 8 mm, is in full agreement with the conventional conceptions and the course of the theoretical curves. "Saturation" of the ferrites F-1000, 76 and 191 takes place in weak magnetizing fields; these ferrites are fairly homogeneous and isotropic. F-20 (inhomogeneous), however, is not "saturated" even with considerable magnetization. The investigated ferrites are active in both ranges, with the exception of F-20. They have low magnetic losses in the range far from ferromagnetic resonance, again with the exception of F-20. The ferrite 191 was investigated with an 8 mm wave where it showed properties similar to F-1000. The accuracy of the measurements was determined by the resolution of the wavemeters, being 0.35 Mc/sec with the 8-mm wave and 0.12 Mc/sec at 3 cm. There are 6 figures.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva AN SSSR Moskva
(Institute of Physics imeni P. N. Lebedev AS USSR Moscow)

SUBMITTED: March 6, 1961

Card 2/2

MASH, D.I.; OVECHKIN, A.P.

Ferromagnetic resonance in some ferrates in the centimeter and millimeter wave bands. Zhur. tekhn. fiz. 32 no.9:1115-1122 S '61.

(MIRA 15:9)

1. Fizicheskiy institut imeni P.N. Lebedeva AN SSSR, Moskva.
(Ferromagnetic resonance)
(Microwave)

S/056/02, 043/003/055/063
3104, 3102

AUTHORS: Pasov, N. A., Markin, Ye. P., Mash, D. I.

TITLE: Some characteristics of neon-helium quantum generator

JOURNAL: Zhurnal eksperimental'noi i teoreticheskoi fiziki, v. 41,
n. 5(7), 1961, 1116-1117

ABSTRACT: The quantum generator shown in the figure is described. This operates on the principle of a Javan (Phys. Rev. Lett., 3, 87, 1959). The discharge in the gas mixture is excited by a DC voltage between two sets of external electrodes. Interference mirrors with a coefficient of reflection are used. They consist of 13 quarter-wave glass plates and crystallite. The mirror backings were optical fused quartz with a transmission factor of about 1.0 for 11,530 Å waves. Power and angular divergence of the 11,530 Å emission were measured. The beam divergence was about one angular minute and the power about 5.2 mW. The latter remained virtually constant throughout the range of the neon-to-helium partial pressure ratios of 1:10-1:4 but decreased when the neon partial pressure was further increased. There is 1 figure.

Card 1/2

3'056/62, 047/001, 056 0-1
3'01/3'02

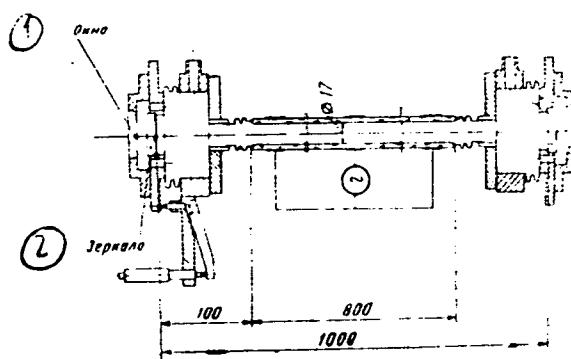
Some characteristics of neon-helium...

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva Akademii Nauk SSSR
(Physics Institute imeni P. N. Lebedev of the Academy of Sciences USSR)

SUBMITTED: July 3, 1962

Fig. Quantum generator.

Legend: (1) window,
(2) mirror.



Car: 2/2

10-92-05

ACCESSION NO. A-2476692

radiations at 1.7, 1.2, 0.4 and 0.2 microns were noticed which complicated the shape of the visible glow. Simultaneous radiations at the three above wavelengths were recorded (infrared spectrum) in a 1-mm (2.54-cm long, 1/2-mm diameter tube, one of the authors (A.N. SSSR) having been given the name of the tube) curve. The infrared (infrared spectrum) radiation power of 1.7, 1.2 and 0.4 microns (up to 4 torr) curves and 0.25 microns (up to 1 torr) radiation power of 0.25, 1.524, 1.1161, 1.2013, 1.7211, 1.8408, 2.03, 2.40 microns lines were obtained. Other experiments reported with bismuth-silver-doped mirror gave a value of 0.25, 1.524, 1.1161, 1.2013, 1.7211, 1.8408, 2.03, 2.40-micron lines were obtained. Other experiments with the same mixture involved 2.026, 2.4193, 2.6269, 2.6514, 3.1069, 3.2749, 3.266, and 3.5070 microns lines. The authors are deeply grateful to V. G. Gulyayev for his constant help and variable interest in the work, and to M. A. V. Gulyayev for his daily active help in the work. Orig. auth. has

O. V. Gulyayev

ASSOCIATION OF ISKRAELETCHNICHESKY INSTITUTE AN SSSR
Institute AN SSSR

AND PREPARED BY

ENCL: 00

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NO RDE: 504

OTHER: 009

SUB CODES: EG

Card 7/1451

KUZNETSOV, A.A.; MASH, D.I.; MILINKIS, B.M.; CHIRINA, L.I.

Operating conditions of a Ne-Ge and Xe-Ge gas laser. Radiotekhnika i elektron. 9 no.10:1893-1897 G '64. (XPA 17:11)

1. Fizicheskiy institut im. I.N. Lebedeva AN SSSR.

L-7602-65 EMA(1)/EMC(1)/RBD/EM(1)/EM(1)/EPE(1)/EBC(1)-2/EPR/EBC(1)/E/EMP(t)/
EBC(1)-2/EMP(1)/EMA(1)/EMP(1)/EM(1)-2/EPE(1)-2/EP-4/PC-4/PC-4/PB-4/PB-4/
EBC(1)-2/EMP(1)/EMA(1)/EMP(1)/EM(1)-2/EP-4/PC-4/PC-4/PB-4/PB-4/
P-4/PB-4/PL-4/EP(1)/AEML/SSD/AEDC(1)/ASD(1)-5/ARCTR/RAEM(1)/ESD(1)/ESD(1)
S/0051/64/01/005/0796/0798
ACCESSION NR: AB4048758 RE/JC

AUTHORS: Miron, D. I.; Papulovskiy, V. P.; Chertina, N. R.

TITLE: Operation of a gas laser with a xenon-krypton mixture.

PUBLICATION DATE: 17 NOV 1964 7/7/71

SOURCE: Optika i spektroskopiya, v. 17, no. 11, 1964. 796-798

TOPIC WORDS: xenon; krypton; gas laser; laser material; laser output; stimulated emission

ABSTRACT: In view of the theoretical feasibility of obtaining population inversion between certain of the 3d and 2p levels of xenon in a mixture of xenon and krypton, the authors experimentally obtained laser action in such a mixture at 12 wavelengths between 2.03 and 9.15 microns. The wavelength up to 7.5 microns was obtained with a tube of curvature of 2 meters which we placed 3 meters apart. The discharge tube with quartz windows set at the Brewster angle to the glass was 70 mm long and 12 mm inside diameter. A setup with

CONT'D. 1/2

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ACCESSION NR. AF4048758
internal confocal mirror of 1 meter radius was used for longer (35 u.10)
wavelengths (because of the large absorption of quartz at these
wavelengths). The MIRROR was made of germanium and the other of
solid silver. The pump frequency was 40 MC. The mixture contained
98.9% krypton, 0.9% xenon, and the balance oxygen and nitrogen. The
results are contained in Table I of the enclosure. The dependence
on the total pressure or the output power of some wavelengths and
of the amplitude were plotted for some lines. The authors thank
N. G. Basov for continuous interest and M. A. Vytotskaya and A. A.
Kuznetsov for daily help. One article has 4 figures and 1 table.

ASSOCIATION: none

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OPTIONAL FORMS

NO. 1015 (GSA GEN. 100)

GARDEN CITY

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ACCESSION NO. A4048758

REF ID: A6511

Table I. Veto and kevlar emission wavelengths

Wavelength	Transition system frequency	Intensities relative to hydrogen
10200	Lyman α	1.4 $\times 10^{-1}$
10410	Lyman β	1.1 $\times 10^{-1}$
11000	Lyman γ	1.1 $\times 10^{-1}$
12210	Lyman δ	1.1 $\times 10^{-1}$
13010	Lyman ϵ	1.6 $\times 10^{-2}$
13500	Lyman ζ	7.1 $\times 10^{-2}$
17500	Lyman η	1.9 $\times 10^{-1}$
21000	Lyman χ	1.4 $\times 10^{-1}$
21115	Lyman ψ	1.3 $\times 10^{-1}$
21192	Lyman ν	1.3 $\times 10^{-1}$
21224	Lyman μ	1.3 $\times 10^{-1}$

Card 1/4

ACCESSION NR: AP4043664

S/0056/64/047/002/0783/0784

AUTHORS: Mash, D. I.; Starunov, V. S.; Fabelinskiy, I. L.

TITLE: Investigation of the attenuation of hypersound in liquids by
an optical method

SOURCE: Zh. eksper. i teor. fiz., v. 47, no. 2, 1964, 783-784

TOPIC TAGS: hypersonic radiation, absorption coefficient, line
width, fine structure, light scattering, benzene, carbon tetrachloride

ABSTRACT: Direct measurement of the width of the shifted fine-structure components has been recently made possible by the availability of a very narrow exciting line, which has made possible the measurement of the half-width of the Mandel'shtam-Brillouin components and consequently also the coefficient of absorption of hypersound. The results of the first measurements of absorption of hypersound of this type are re-

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ACCESSION NR: AP4043664

ported briefly. The investigated liquid was illuminated with a light beam having a narrow spectral width at $\lambda = 6328 \text{ \AA}$. The light scattered by the liquid in a direction perpendicular to the direction of the exciting light was passed through a Fabry-Perot interferometer to a camera which photographed the fine structure. The intensity distribution in the fine structure component and the half-widths were determined by photographic photometry. The half-width was found to be 0.01 cm^{-1} for benzene and 0.02 cm^{-1} for carbon tetrachloride. This yields a hypersound absorption coefficient of $7 \times 10^3 \text{ cm}^{-1}$ and $2 \times 10^4 \text{ cm}^{-1}$ for benzene and carbon tetrachloride, at frequencies 4.8 and 3.2 Gc, respectively. The use of very narrow spectral lines makes it possible to study quantitatively the attenuation of hypersound, the temperature conductivity, and also the diffusion and dimensions of molecules in solutions. "The authors thank V. P. Zaytsev who made possible the use of mirrors with multi-layer dielectric coatings, and Ye. V. Tiganov for participating in the measurements."

Card 2/3

ACCESSION NR: AP4043664

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva Akademii nauk
SSSR (Physics Institute, Academy of Sciences SSSR)

SUBMITTED: 23May64

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Card 3/3

L-50001-65 RPL(-)/CPW(m)/EPP(G)/BMP(S)/MPC(J)/MVA(G) RPL: MM/JN/RM/WH
US/0386/65/002/001/0041/004+

CCGAS COMPANY /M-1021149

Author: V. V. Slobodkin, Yu. V. Starodubcov, V. S. Vabastashov

Date: 1965-01-01

Subject: Stimulated scattering of the Rayleigh line wings

Source: VINITI preprint no. 4 (corresponding to the paper "Stimulated scattering of the Rayleigh line wings" by V. V. Slobodkin, Yu. V. Starodubcov, V. S. Vabastashov, 1965, 41-45, and insert 6) received from VINITI on 12/10/1965.

Abstract: From these papers, stimulated scattering, Rayleigh line wings, stimulated scattering, benzene, toluene, acetylene, acetone, carbon dioxide, benzene, toluene, ultraviolet zone, acoustic waves, laser, resonance.

ABSTRACT: Upon the discovery of a new effect, the stimulated scattering of the Rayleigh line wings, it was reported. The new phenomenon was investigated in carbon dioxide, benzene, toluene, acetobenzene, toluene, / acetylene, benzene, and acetone (which were excited by a 100 mW Q-modulated cw laser (see Fig. 1 of the Enclosure), 6200 Å (\sim 100 K)). Q-modulated cw laser (see Fig. 1 of the Enclosure), 6200 Å (\sim 100 K)). Q-modulated cw laser (see Fig. 1 of the Enclosure), 6200 Å (\sim 100 K)).

Card No. 1

2

UDK 617.155.3:539.2'43: 002469
EXCITATION AND AN 10⁻⁵ K INFLUENCE OF CRYPTOCYANINE IN METHYL
AND PROPYLENIC CARBON DISULFIDE AND DIACO-
LICOBETE. THE EFFECT WAS OBSERVED IN CARBON DISULFIDE AND DIACO-
LICOBETE AT ROOM TEMPERATURE AND IN SOLID AT 100°. UNDER DYNAMIC
CONDITIONS THE SAME EFFECT WAS NOT OBSERVED IN THE REMAINING LIQUIDS
SOLVENTS. WITHIN SCATTERING WAS OBSERVED IN ALL OF THE
LIQUIDS A COUPLED STOKES-ANTI-STOKES WING EXHIBITED
A LIQUID STATE OF EXCITATION OF SPANNING THE THRESHOLD. A SCATTERING
AT 100° OF CARBON DISULFIDE IN THE HEATED BOX WAS FIVE TIMES EXHIBITED
A LIQUID STATE OF EXCITATION. THE EXISTENCE OF THIS THRESHOLD, THE PRESENCE OF THE
LIQUID STATE CORRESPONDS TO THE EXCITATION INTENSITY, THE ABSENCE OF THE ANTI-STOKES WING.
THIS IS EXPLAINED BY THE ABSENCE OF THE ANTI-STOKES WING.
THE COUPLED STOKES-ANTI-STOKES WING HAS BEEN OBSERVED IN SOLVENTS.
THE ABSENCE OF THE ANTI-STOKES WING IS RELATED TO THE OCCURRENCE OF THE RING EFFECT. ONG.

ASSOCIATION OF THE CHEMICAL INSTITUTE OF THE USSR (Belorussian Academy of Sciences)
SSSR (Ministry of Higher Education of the USSR)

UNIVERSITY OF MINSK

MOSCOW 00

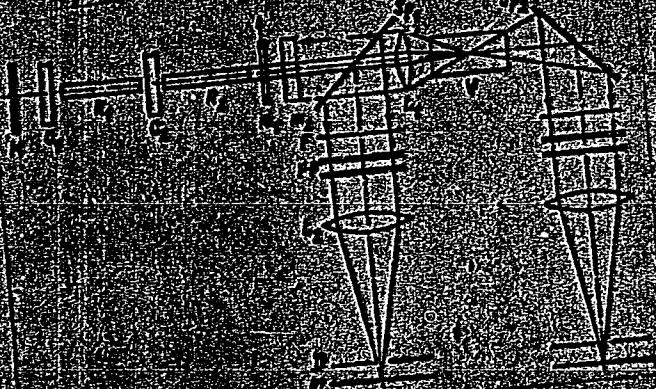
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PHOTO: 01
NUMBER: 002

SUB CODE: RC/NP
ADDRESS: 4070

ENCLOSURE 01
C

REF ID: A65023749



Experimental apparatus

L = mirror ($R = 100\text{cm}$); R =
R = ruby rods each 12 cm long
and 1.4 cm in diameter; m =
m = plane-parallel plates;
S = SP = glass-plate sepa-
rator; t = 1 mm ($t = 3\text{ cm}$);
D = lens ($f = 120\text{ cm}$).
L

Carlo